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BIOLOGICAL PECULIARITIES OF BOYD-10
SHIGELLA, ISOLATED IN GROUP INCIDENCE OF
DYSENTERY

Following is a translation of an author's abstract by A.Ya. Borovaya, Ye.Ye. Verkholomov and V.A. Arbuzova (Institute of Epidemiology and Microbiology imeni Pasteur) from the Russian-language periodical Zhurnal Mikrobiologii Epidemiologii i Immunobiologii (Journal of Microbiology, Epidemiology and Immunobiology), No 9, Moscow, September 1967, page 147.7

During the bacteriological examination of feces of 23 patients obtained from a focus of severe dysentery, dysentery bacteria were isolated from ten specimens which were identified as a Boyd subspecies, serological type 10. As dysentery Boyd-10 cultures are isolated and described extremely rarely (we did not find any reports of their isolation in the Soviet Union), and also because the cultivating peculiarities of these strains render their serological identification quite difficult, we subjected to a detailed study 25 cultures stemming from ten patients. Study was made of the morphological, biochemical properties of the cultures, of their biological characteristics, and a serological analysis was also performed.

It was established as a result of this work that the enzymatic and serological characteristics of the cultures were identical to the standard strain Boyd 10. At the same time, their cultural and morphological peculiarities were identified (the articulation of colonies on agar media and the ability of cultures to non-specifically clot in certain immune sera). Also established were their abilities to produce keratoconjunctivitis in guinea pigs, to reproduce in thin white muscle with intranasal infection and to cause

cell degeneration when multiplying in tissue cultures.

In specially conducted experimental research, prolonged (up to 200 days) viability and virulence of the Boyd-10 cultures in water kept at 4° were established.

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